

Applicants: Ron S. Israeli et al.
U.S. Serial No.: 10/751,346
Filed: January 2, 2004

Pending Claims 21-58

21. A method of ablating or killing normal, benign hyperplastic, and cancerous prostate epithelial cells comprising: providing a biological agent which binds to an outer membrane domain of prostate specific membrane antigen and contacting said cells with the biological agent under conditions effective to permit both binding of the biological agent to the outer membrane domain of the prostate specific membrane antigen and ablating or killing of said cells.
22. A method according to claim 21, wherein the biological agent is an antibody or ligand.
23. A method according to claim 21, wherein said contacting is carried out in a living mammal and comprises: administering the biological agent to the mammal under conditions effective to permit both binding of the biological agent to the outer membrane domain of the prostate specific membrane antigen and killing of said cells.
24. A method according to claim 23, wherein said administering is carried out orally, parenterally, subcutaneously, intravenously or intramuscularly.

Applicants: Ron S. Israeli et al.
U.S. Serial No.: 10/751,346
Filed: January 2, 2004

25. A method according to claim 22, wherein an antibody is used in carrying out said method, the antibody being selected from the group consisting of a monoclonal antibody and a polyclonal antibody.
26. A method according to claim 22, wherein the ligand is used in carrying out said method.
27. A method according to claim 21, wherein the biological agent is bound to a substance effective to kill or ablate said cells upon binding of the biological agent to the outer membrane domain of the prostate specific membrane antigen of said cells.
28. A method according to claim 27, wherein the substance effective to kill said cells is a cytotoxic agent.
29. A method according to claim 28, wherein the cytotoxic agent is selected from the group consisting of a drug, a toxin, a radioactive substance, a chemotherapeutic, an enzyme and molecules of fungal, viral and bacterial origin.
30. A method according to claim 21, wherein the biological agent is in a composition further comprising a physiologically acceptable carrier, diluent, or stabilizer.
31. A method according to claim 21, wherein the biological agent is in a composition further comprising a

Applicants: Ron S. Israeli et al.
U.S. Serial No.: 10/751,346
Filed: January 2, 2004

pharmaceutically acceptable carrier, diluent, or stabilizer.

32. A method of detecting normal, benign hyperplastic, and cancerous prostate epithelial cells or a portion thereof in a biological sample comprising: providing a biological agent which binds to an outer membrane domain of prostate specific membrane antigen, wherein the biological agent is bound to a label effective to permit detection of said cells or a portion thereof upon binding of the biological agent to said cells or a portion thereof; contacting the biological sample with the biological agent having a label under conditions effective to permit binding of the biological agent to the outer membrane domain of the prostate specific membrane antigen of any of said cells or a portion thereof in the biological sample; and detecting a presence of any of said cells or a portion thereof in the biological sample by detecting the label.
33. A method according to claim 32, wherein the biological agent is an antibody or ligand.
34. A method according to claim 32, wherein said contacting is carried out in a living mammal and comprises: administering the biological agent to the mammal under conditions effective to permit binding of the biological agent to the outer membrane domain of the prostate specific

Applicants: Ron S. Israeli et al.
U.S. Serial No.: 10/751,346
Filed: January 2, 2004

membrane antigen of any of said cells or a portion thereof in the biological sample.

35. A method according to claim 34, wherein the label is a radioactive substance.
36. A method according to claim 34, wherein the biological sample is a mammal's prostatic tissue.
37. A method according to claim 34, wherein said detecting is carried out after a prostatectomy.
38. A method according to claim 34, wherein said administering is carried out orally, parenterally, subcutaneously, intravenously or intramuscularly.
39. A method according to claim 33, wherein an antibody is used in carrying out said method, said antibody being selected from the group consisting of a monoclonal antibody and a polyclonal antibody.
40. A method according to claim 33, wherein a ligand is used in carrying out said method.
41. A method according to claim 32, wherein the label is selected from the group consisting of a fluorescent label and a radioactive label.

Applicants: Ron S. Israeli et al.
U.S. Serial No.: 10/751,346
Filed: January 2, 2004

42. A method according to claim 32, wherein the biological agent is in a composition further comprising a physiologically acceptable carrier, diluent, or stabilizer.
43. A method according to claim 32, wherein the biological agent is in a composition further comprising a pharmaceutically acceptable carrier, diluent, or stabilizer.
44. A method according to claim 32, wherein said contacting is carried out in a sample of serum or urine.
45. An isolated biological agent which binds to an outer membrane domain of prostate specific membrane antigen.
46. An isolated biological agent according to claim 45, wherein said isolated biological agent is an isolated antibody or ligand.
47. An isolated biological agent according to claim 46, wherein the isolated biological agent is an antibody selected from the group consisting of a monoclonal antibody and a polyclonal antibody.
48. An isolated biological agent according to claim 46, wherein the isolated biological agent is a ligand.

Applicants: Ron S. Israeli et al.
U.S. Serial No.: 10/751,346
Filed: January 2, 2004

49. An isolated biological agent according to claim 45, wherein the biological agent is bound to a cytotoxic agent.
50. An isolated biological agent according to claim 49, wherein the cytotoxic agent is selected from the group consisting of a drug, a toxin, a radioactive substance, a chemotherapeutic, and molecules of fungal, viral and bacterial origin.
51. A composition comprising: a biological agent according to claim 49 and a physiologically acceptable carrier, diluent, or stabilizer mixed with the biological agent.
52. A composition comprising: a biological agent according to claim 49 and a pharmaceutically acceptable carrier, diluent, or stabilizer mixed with the biological agent.
53. An isolated biological agent according to claim 45, wherein said biological agent is bound to a label.
54. An isolated biological agent according to claim 53, wherein the label is selected from the group consisting of a fluorescent label, a radioactive label and an immunohistochemical probe.
55. An isolated biological agent according to claim 45, wherein said biological agent is bound to a biologically active enzyme.

Applicants: Ron S. Israeli et al.
U.S. Serial No.: 10/751,346
Filed: January 2, 2004

56. A composition comprising: a biological agent according to claim 53 and a physiologically acceptable carrier, diluent, or stabilizer mixed with the biological agent.
57. A composition comprising: a biological agent according to claim 53 and a pharmaceutically acceptable carrier, diluent, or stabilizer mixed with the biological agent.
58. A hybridoma cell line that produces a monoclonal antibody which binds to an outer membrane domain of prostate specific membrane antigen.